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**ARIZONA WATER COMPANY**



Docket No. W-1445A-02-0619

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**2002 RATE HEARING EXHIBIT NO. \_\_\_\_**

**For Test Year Ending 12/31/01**

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**PREPARED  
REBUTTAL TESTIMONY & EXHIBITS  
OF  
William M. Garfield**

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**EXHIBIT**

**A-2,**  
*Admitted*

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10 **BEFORE THE ARIZONA CORPORATION COMMISSION**

11 IN THE MATTER OF THE  
12 APPLICATION OF ARIZONA WATER  
13 COMPANY, AN ARIZONA  
14 CORPORATION, FOR ADJUSTMENTS  
15 TO ITS RATES AND CHARGES FOR  
16 UTILITY SERVICE FURNISHED BY  
17 ITS EASTERN GROUP AND FOR  
18 CERTAIN RELATED APPROVALS.

Docket No. W-01445A-02-0619

19 **REBUTTAL TESTIMONY OF WILLIAM M. GARFIELD**

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1 I. INTRODUCTION AND QUALIFICATIONS

2 Q. WHAT IS YOUR NAME, EMPLOYER AND OCCUPATION?

3 A. My name is William M. Garfield. I am employed by Arizona Water Company (the  
4 "Company") as President.

5 Q. ARE YOU THE SAME WILLIAM M. GARFIELD THAT PREVIOUSLY  
6 PROVIDED DIRECT TESTIMONY IN THIS MATTER?

7 A. Yes, although since then I have been promoted to President of the Company  
8 following the retirement of James R. Livingston on July 18, 2003.

9 Q. DO YOU HAVE ADDITIONAL QUALIFICATIONS AND EXPERIENCE  
10 NOT PREVIOUSLY PROVIDED IN YOUR DIRECT TESTIMONY THAT  
11 YOU BELIEVE ARE GERMANE TO YOUR REBUTTAL TESTIMONY?

12 A. Yes, I was a member of a municipal water provider workgroup that worked with  
13 the Arizona Department of Water Resources ("ADWR") to develop the Third  
14 Management Plan for the Pinal and Phoenix Active Management Areas ("AMA").  
15 This workgroup studied and advised the ADWR on residential water demands,  
16 water distribution system lost water requirements, and other water use  
17 characteristics related to conservation requirements. Also, since filing direct  
18 testimony in this matter, I have been appointed to the Water Infrastructure Finance  
19 Authority Board of Directors, the Water Utility Association of Arizona Board of  
20 Directors, and I have been elected Chairman of the Water Management  
21 Subcommittee of the Pinal Active Management Area Groundwater Users Advisory  
22 Council.

23 II. PURPOSE AND EXTENT OF TESTIMONY

24 Q. WHAT IS THE PURPOSE AND EXTENT OF YOUR REBUTTAL  
25 TESTIMONY?

26 A. The purpose of my rebuttal testimony is to provide testimony either in support of,

1 or to rebut, the testimony filed by Utilities Division Staff ("Staff") and RUCO, and  
2 also to provide additional testimony on behalf of the Company to further support  
3 its requested rate increases. Specifically, I will be addressing John Thornton's  
4 testimony as it relates to the conservation issues raised by Staff's tiered rate design  
5 proposal; Lyndon Hammon's testimony as it relates to water loss and water system  
6 maintenance; Ron Ludders' and Mr. Hammon's testimony related to the so-called  
7 PCG matter; as well as certain issues raised by RUCO witnesses relating to rate  
8 consolidation and the PCG matter, including the treatment of the PCG monetary  
9 payment received by the Company in the PCG settlement. Finally, I will comment  
10 on certain issues concerning "risk" as it relates to cost of capital analysis.

11 **Q. WOULD YOU PLEASE SUMMARIZE THE COMPANY'S REBUTTAL**  
12 **POSITION?**

13 A. Yes, there appear to be several key issues in dispute. These issues include: 1)  
14 return on equity; 2) treatment of the settlement payment received by the Company  
15 from the Pinal Creek Group ("PCG"); 3) rate design; 4) rate consolidation for  
16 Apache Junction and Superior; 5) recovery of deferred Central Arizona Project  
17 ("CAP") payments; 6) working capital allowance; and 7) elimination of purchased  
18 water and purchased power adjuster mechanisms ("PWAM" and "PPAM"). An  
19 eighth key issue, post test year plant additions ("PTYPA"), will be resolved if Staff  
20 corrects for errors in allocating the Phoenix Office and Coolidge Meter Shop  
21 PTYPA as identified in Ms. Hubbard's rebuttal testimony.

22 More specifically, Staff and RUCO recommend an insufficient return on  
23 equity that: 1) fails to recognize the increased risk to the Company due to its  
24 relative small size (compared to the larger, more diversified companies to which it  
25 is being compared), impact from the new arsenic maximum contaminant level, and  
26 other regulatory risks not faced by the companies to which it is being compared; 2)

1 fails to recognize the benefits received by the Company's customers as a result of  
2 receiving water service from a well-run, financially responsible company that  
3 operates as a single economic unit, although composed of small individual systems  
4 with separate rates; 3) fails to recognize the returns on equity that investors require  
5 to invest in a company such as the Company; and 4) fails to recognize returns on  
6 equity recently authorized by other public utility commissions for companies less  
7 risky than the Company.

8 The Company objects to Staff's and RUCO's recommendations to take all,  
9 or a part of, the settlement payment received by the Company from the PCG  
10 because the recommendations: 1) constitute confiscatory and retroactive  
11 ratemaking; 2) promote bad public policy by removing financial incentives for  
12 water utilities to pursue polluters; 3) fail to recognize the significant extent of  
13 benefits received by Miami customers solely from the successful efforts of the  
14 Company; and 4) are contrary to proper accounting guidelines, which have been  
15 carefully followed by the Company.

16 The Company objects to Staff's marginal cost based tiered rate design  
17 proposal because: 1) the proposed rate design shifts the cost of service from small  
18 users to larger users for both commodity and minimum bill components; 2) no cost  
19 of service study has been performed by Staff to justify the new rate design; 3)  
20 marginal cost pricing for inverted block water rate design is experimental in nature  
21 and has never been approved by the Commission; 4) Staff has not assessed the  
22 adverse impact on large users, such as schools, hospitals and industrial customers;  
23 5) Staff has failed to address the revenue instability effects inherent in tiered rate  
24 design that will result in greater risk to the Company; 6) Staff has failed to justify  
25 the need for a tiered rate design; 7) Staff's rate design applies the same water use  
26 blocks to all of the Eastern Group systems, without considering water uses for each

1 water system; and 8) Staff's use of tiered rates contradicts the Arizona Department  
2 of Water Resources' conclusion that there is little or no potential for conservation  
3 for several of these water systems.

4 The Company objects to Staff's and RUCO's recommendations that Apache  
5 Junction and Superior not be consolidated, failing to recognize the significant  
6 benefits customers of both water systems would receive. The Company's request  
7 to consolidate these systems in two steps should be approved.

8 The Company objects to Staff's proposed amortization schedule for  
9 recovery of deferred payments made by the Company for CAP water because it  
10 extends well beyond the periods of time authorized by the Commission for  
11 recovery of these same deferred charges by other water utilities, such as Sun City  
12 Water which was authorized to recover these same deferred charges over five (5)  
13 years. Recovery of these charges should not be stretched out over the ten (10)  
14 years RUCO recommends, and certainly not the thirty-two (32) to thirty-four (34)  
15 year time period that Staff recommends.

16 The Company objects to Staff's working capital allowance, primarily due to  
17 Staff's incorrect lead-lag analysis of property taxes, grossly overestimating the lag  
18 between property tax accruals and the actual date that property taxes are paid. The  
19 result of this overstatement of lag-time understates the Company's working capital  
20 allowance. The Company's working capital allowance should be accepted and  
21 Staff's recommendation should be rejected.

22 Staff proposes to eliminate PWAM and PPAM adjuster mechanisms for the  
23 Eastern Group. These adjuster mechanisms should be retained in their current  
24 form because they: 1) provide a mechanism for adjustments to rates based on  
25 actual changes in purchased power or purchased water, no more no less, which  
26 protects both the customers and the utility; 2) the detailed accounting necessary for

1 implementing actual changes in PWAM and PPAM is performed by the Company,  
2 expediting Staff's review and approval; 3) allow the Company to defer a general  
3 rate proceeding that would otherwise be needed; and 4) PWAM and PPAM  
4 adjusters are administratively efficient and have proven successful for many years.

5 **III. DESCRIPTION OF THE PCG MATTER - MIAMI WATER SYSTEM**

6 **Q. PLEASE DESCRIBE THE COMPANY'S MIAMI WATER SYSTEM AND**  
7 **MATTERS RELATED TO THE PCG.**

8 A. The Company's Miami water system is located in Gila County, Arizona, and it has  
9 developed over the past hundred years around a mining economy, primarily the  
10 copper mining industry. The current Miami water system is comprised of three or  
11 more water systems, originally known as the Miami, Claypool and Central Heights  
12 water systems. These individual water systems, which have been consolidated  
13 over the past thirty or so years, were originally independent of one another, relying  
14 on independent water supplies to meet water system demands.

15 **Q. PLEASE DESCRIBE THE HISTORICAL AND CURRENT WATER**  
16 **SUPPLY SITUATION FOR THESE INDIVIDUAL WATER SYSTEMS.**

17 A. The Company's original Miami water system relied on wells located along the  
18 Bloody Tanks Wash. These were shallow wells, one of which consisted of a series  
19 of horizontal drifts (timbered shafts) extending under the streambed of the Bloody  
20 Tanks Wash, and the remainder of which were either shallow drilled or dug wells.  
21 The capacity of the Miami wells was highly variable and, in times of drought,  
22 produced very little water. Shortages were common as supplies were plentiful only  
23 in times of heavy rainfall.

24 The Claypool system, originally owned by Citizens Utilities, consisted of  
25 two or more wells drilled near the confluence of the Bloody Tanks Wash and the  
26 Miami Wash. Although these wells were drilled to depths between two and three



1 hundred feet, extending into a portion of the Gila Conglomerate, their capacities  
2 were also significantly affected by the amount of rainfall in this area and, in times  
3 of drought, capacity was substantially limited.

4 The Central Heights system consisted of two or more deep wells drilled  
5 into the Gila Conglomerate that were of a significantly more consistent capacity  
6 than the wells that supplied the Miami and Claypool systems because they were  
7 generally not affected by the amount of rainfall. For the past thirty years, the  
8 Central Heights area of the Company's consolidated Miami system has experienced  
9 the majority of customer growth, while the Town of Miami and the Claypool areas  
10 have declined in customers due, in large measure, to the prevailing economic  
11 conditions in those areas.

12 **Q. HAS THE COMPANY HAD A LONG-TERM APPROACH TO THE**  
13 **WATER SUPPLY SITUATION IN MIAMI?**

14 **A.** Sometime ago the Company recognized the need for an additional and more stable  
15 water supply and began to drill new wells in the Gila Conglomerate where the  
16 Company already had wells producing stable supplies of high quality water.

17 **Q. HOW MANY WELLS DID THE COMPANY DRILL IN THE GILA**  
18 **CONGLOMERATE?**

19 **A.** Over the course of thirty years, the Company drilled 17 wells with capacities up to  
20 300 gallons per minute ("gpm"). Although these wells were more stable from year  
21 to year, they tended to decline in production capacity over time, requiring  
22 additional wells to maintain system capacity. The resulting water supplies were  
23 barely adequate to meet demand, but left no reserve capacity, exposing the  
24 Company and its customers to shortages caused by increased demand, drought or  
25 equipment failure. In fact, as late as 1997, the Company experienced periods of  
26 water supply shortages leading to voluntary conservation measures, especially

1 during summer peaks. It was while the Company was further investigating other  
2 water supply options to combat such problems that it learned of the proposed  
3 consent order regarding the Pinal Creek Group or PCG.

4 **Q. WHAT DID THE COMPANY DO AFTER IT LEARNED OF THE**  
5 **PROPOSED CONSENT ORDER?**

6 A. The Company reviewed Hydro Geo Chem, Inc.'s Feasibility Study Report that  
7 described a clean-up action proposed by the PCG as part of the Consent Order.  
8 The proposed clean-up action would have pumped a significant quantity of water  
9 from the alluvial aquifer along the Bloody Tanks Wash, Miami Wash and Pinal  
10 Creek. This would have precluded the Company from developing its own pumping  
11 and treatment system to produce potable water from an area of poor groundwater  
12 quality. In addition, if the PCG Consent Order was approved by the federal court  
13 hearing the PCG litigation, the Company would have been prevented from, or  
14 significantly limited in, filing any future claims against the parties potentially  
15 responsible for the groundwater contamination. Therefore, the Company objected  
16 to the PCG Consent Order to pursue what may have been the only opportunity to  
17 have its concerns adequately addressed.

18 **Q. DID THE PARTIES TO THE CONSENT ORDER COMPLAIN BECAUSE**  
19 **THE COMPANY VOICED ITS OBJECTIONS AT THE TIME THE**  
20 **CONSENT ORDER WAS AWAITING COURT APPROVAL?**

21 A. Sure they did. And I am not saying that the PCG and State of Arizona purposely  
22 hid the details of its negotiations, but, the Company had not been notified of the  
23 possibility that its claims for damages could be significantly limited if the Consent  
24 Order received court approval. It must be further recognized the Company is small  
25 in comparison to the very large, well-funded, mining companies with significant  
26 political and legal resources.

1           Because of the threat of continuing contamination of the Miami water  
2 supply, the Company could not be deterred by negative reactions to the timing of  
3 its objection by the State of Arizona or the PCG members. This was likely the one  
4 and only opportunity for the Company's concerns to be addressed with any hope of  
5 success, since the Arizona Department of Environmental Quality ("ADEQ") and  
6 the PCG were anxious to have the Consent Order approved. So, we spoke up to  
7 protect the Company and our customers.

8 **Q. HOW WAS THE COMPANY ABLE TO SETTLE WITH THE PCG?**

9 A. Through a concerted effort to ensure the Company's claims were not ignored. The  
10 Company met on several occasions with representatives of the PCG, ADEQ and a  
11 number of attorneys representing the various stakeholders. The meetings occurred  
12 over approximately six to eight months and were intense. The Company insisted  
13 on a minimum of 600 gpm of replacement supply capacity for a minimum of 30  
14 years plus some form of compensation to compromise and resolve all other claims  
15 that the Company may have had.

16           The PCG Settlement and Release Agreement ("PCG Agreement") was the  
17 result of these efforts. It provides for replacement water and compensation in  
18 exchange for a release of all of the Company's claims, of course, without any  
19 acceptance of liability or responsibility by the members of the PCG. In the end, I  
20 am absolutely certain that had the Company not undertaken a determined effort, the  
21 Miami customers would not have the benefit of the replacement water supply,  
22 which the Company secured by devoting extraordinary time and resources to  
23 aggressively negotiate the PCG Agreement.

24 **Q. DO YOU AGREE WITH STAFF'S PROPOSED TREATMENT OF THE**  
25 **SETTLEMENT?**

26 A. No. Staff witness Mr. Ludders outlines Staff's proposed treatment of the

1 settlement proceeds. See Direct Testimony of Ronald E. Ludders ("Ludders  
2 Direct") at 52. To begin with, I do not agree with Mr. Ludders' characterization of  
3 the monetary payment by the PCG to the Company as a "windfall." Mr. Ludders'  
4 comments could not be further from the truth. The Company pursued a course of  
5 action with significant financial, political and potential operational risks.  
6 Fortunately, we were successful and the result is contractually assured, reliable,  
7 low cost (and, so far, free) replacement water supply for our Miami system  
8 customers. Yet, Staff appears to want to "punish" the Company for its efforts.  
9 Frankly, it is my view that Staff might justifiably criticize the Company if it had  
10 failed to take action or had not succeeded and then had to spend millions of dollars  
11 on additional water supplies.

12 The bottom line is the Company went out on a limb, committed significant  
13 resources, took serious risks and achieved significant benefits for its customers.  
14 Clearly, the Commission should not respond as Staff suggests, by sending a  
15 message that such risks are better not taken. That would be bad public policy.

16 **Q. WHAT ABOUT MR. LUDDERS' CLAIM THAT THE COMPANY FAILED**  
17 **TO MENTION THE PCG PAYMENT?**

18 **A.** Contrary to Mr. Ludders' claim, the payments were properly disclosed and  
19 accounted for in the Company's financial statements, as Mr. Kennedy's rebuttal  
20 testimony will further address. Moreover, while Mr. Ludders correctly notes that  
21 the PCG Agreement contains confidential provisions that preclude disclosure of its  
22 terms except under certain conditions, once the conditions were met (i.e., a  
23 confidentiality agreement with Staff), the Company fully disclosed the terms of the  
24 PCG Agreement.

25 **Q. HOW WOULD YOU CHARACTERIZE THE PAYMENT TO THE**  
26 **COMPANY FROM THE PCG?**

1 A. Contrary to Mr. Ludders' allegations, the PCG Settlement proceeds were not given  
2 to the Company solely to remedy past damages. *Id.* Mr. Ludders either has not  
3 read the settlement agreement, or has chosen to ignore that replacement water and  
4 monetary payments were made in compromise of and in exchange for a release of  
5 all potential losses, damages, claims and litigation arising out of the Company's  
6 claims.

7 Also contrary to Mr. Ludders' testimony, the PCG is not obligated to  
8 provide free water to the Company until October 30, 2028. *Id.* The PCG is  
9 obligated to provide replacement water in a specific and increasing amount, from  
10 100 gpm in 1998 to 600 gpm by 2003 and thereafter, until October 31, 2028. The  
11 PCG has exercised its option to deliver replacement water at no cost to the  
12 Company, in lieu of conveying water supply facilities to the Company, through the  
13 current date. However, the PCG Agreement also requires that, by October 31,  
14 2028, the PCG must have conveyed this capacity to the Company in the form of  
15 wells drilled in the Gila Conglomerate. Also reflecting a misunderstanding of the  
16 clear provisions of the PCG Agreement, Mr. Ludders is incorrect in stating that the  
17 Company is responsible for performing preventative maintenance on the PCG  
18 Wells. See Ludders Direct at 17, ls. 14-17. The Company is only responsible to  
19 perform maintenance on wells after ownership is transferred from the PCG to the  
20 Company.

21 Q. WHAT IS THE COMPANY'S RESPONSE TO STAFF'S PROPOSED  
22 ACCOUNTING TREATMENT OF THE PCG SETTLEMENT PROCEEDS  
23 RECEIVED BY THE COMPANY?

24 A. Mr. Kennedy's rebuttal testimony addresses the proper treatment of the settlement  
25 payment. In summary, as Mr. Kennedy discusses, we do not agree with Staff's  
26 recommendation that it be accounted for as a Contribution in Aid of Construction.

1 In this case, the PCG did not provide these funds for the construction of any utility  
2 plant. The payment simply allowed the Company to release the PCG from all  
3 losses, damages, and liabilities arising out of the Company's claims.

4 Perhaps most importantly, Staff's focus on the monetary payment  
5 completely ignores the benefits achieved by the Company for its customers. The  
6 Company's 2001 test year O&M expenses reflect the benefit of the no cost  
7 replacement water delivered to the Company by the PCG, which the Company  
8 estimates to have an annual value of \$150,000 in lower O&M costs alone. The  
9 total value to date and for the next three (3) to five (5) years could reach over  
10 \$1,000,000. In addition, although the Company has earned significantly less than  
11 its authorized rate of return in its Miami system over the past 5 or more years, the  
12 PCG's delivery of replacement water at no cost has allowed the Company to delay  
13 applying for new rates, maintaining a lower cost of water to the Company's Miami  
14 customers than would otherwise be possible.

15 **Q. WILL THE PCG SETTLEMENT BENEFITS CONTINUE TO BE**  
16 **RECEIVED BY THE CUSTOMERS IN THE FUTURE?**

17 **A.** Yes, these benefits will continue to be received by the Company's Miami  
18 customers, at least until the next rate case. Even if the PCG conveyed wells to the  
19 Company today and ceased all deliveries of the free replacement water, the  
20 "subsidized" rates would remain in effect until the next rate case.

21 **Q. ARE THE COMPANY'S CUSTOMERS RECEIVING ANY OTHER**  
22 **BENEFITS FROM THE PCG AGREEMENT?**

23 **A.** Yes, many, such as water supply reliability. The Company's customers are  
24 guaranteed to receive a stable supply of 600 gpm of replacement water through  
25 October 31, 2028, under the terms of the PCG Agreement. Historically, the  
26 Company would have needed to drill at least one new well every two years to

1 account for diminishing capacities from the Gila Conglomerate wells at an average  
2 cost of approximately \$500,000 per drilled well. Thus, ratepayers have been able  
3 to avoid paying a return on approximately \$1,000,000 of new plant that would have  
4 been added (as well as related O&M expenses) over the last four years.

5 Additional avoided costs result from the PCG Agreement and benefit the  
6 Company's customers, such as the impact of water treatment facilities that would  
7 have been required due to new ADEQ regulations. Since the PCG is providing  
8 water supplies from deep wells drilled in the Gila Conglomerate, investment in  
9 such facilities and the recovery of such costs through the Miami system's rates are  
10 avoided.

11 **Q. DO YOU HAVE ANYTHING ELSE TO ADD ABOUT THE PCG**  
12 **SETTLEMENT, MR. GARFIELD?**

13 **A.** Yes. I wish to reiterate our concerns over the treatment of payments received by a  
14 water provider in settlements such as the PCG Settlement as Staff suggests. It  
15 would be poor public policy to remove the incentives for a water utility to actively  
16 pursue polluters to restore contaminated water supplies. No one, other than the  
17 Company, stepped up to protect existing water supplies and to secure low cost or  
18 no-cost replacement water supplies for its Miami customers. Without the  
19 Company's determined and successful actions, the Miami system would have  
20 required substantial investment, have much higher costs, would lack a stable water  
21 supply and would still risk outages. I suggest that the Company's actions are  
22 exactly what the Commission should have expected of the Company.

23 But, this should not be a one-way street. Besides successfully obtaining the  
24 settlement, the Company has already invested capital in the Miami water system  
25 facilities to meet the water supply needs of the Company's customers. Those  
26 facilities remain necessary and used and useful and are essential to the operation of

1 the Miami water system and there is no excess capacity. Nevertheless, Staff  
2 wishes to take all benefit of the settlement away by reducing rate base and  
3 depriving the Company from earning a return on its longstanding investment in  
4 utility plant costs. That is the wrong economic message for the Commission to  
5 send.

6 **Q. DO YOU AGREE WITH STAFF THAT IT IS APPROPRIATE TO MAKE A**  
7 **PRO FORMA ADJUSTMENT TO THE PURCHASED POWER COSTS**  
8 **FOR THE MIAMI SYSTEM WHICH REDUCES PURCHASED POWER**  
9 **COSTS BY \$39,000 PER YEAR DUE TO THE REPLACEMENT WATER**  
10 **PROVISIONS WITHIN THE PCG SETTLEMENT AGREEMENT?**

11 **A.** No. Staff's pro forma adjustment is based on a misunderstanding of the PCG  
12 Agreement. Contrary to Mr. Ludders' testimony that the Company indicated there  
13 are no purchased power costs for the PCG water (*see* Ludders Direct, at 17, ls. 25-  
14 26), the fact is that there were no purchased power costs for the quantity of water  
15 received by the Company from the PCG from 1998 through the current date.  
16 However, the Company is responsible for all O&M expenses for wells conveyed to  
17 the Company by the PCG, where conveyed wells are the source of replacement  
18 water rather than the interim provision of direct deliveries of water made by the  
19 PCG to date. The Staff also incorrectly assumes that the direct delivery of water by  
20 the PCG will increase to 600 gpm by October 31, 2003. *See* Ludders Direct at 17,  
21 ls. 22-25. There is no such requirement for the PCG to deliver 600 gpm by direct  
22 delivery to the Company by such date, only that such capacity be available for the  
23 Company either through ownership of such capacity in the form of wells conveyed  
24 by the PCG, with its full impact of O&M costs to the Company, or from delivery  
25 by the PCG of such capacity to the Company at one or more points in its  
26 distribution system. There is no requirement for the PCG to deliver any amount of



1 free water to the Company, let alone the 600 gpm quantity of free water that Staff  
2 incorrectly contends that the Company will receive. In addition, the Company may  
3 not be able to take 600 gpm of free water into its distribution system even if it were  
4 made available to it due to distribution system limitations. Staff has not considered  
5 this limitation in making its recommendation.

6 **Q. DO YOU AGREE WITH RUCO'S RECOMMENDATION THAT THE \$1.4**  
7 **MILLION MONETARY PAYMENT RECEIVED BY THE COMPANY BE**  
8 **SHARED EQUALLY WITH THE MIAMI RATEPAYERS?**

9 **A.** No. The cases cited by Mr. Coley do not provide a precedent for the Commission  
10 to base the sharing of the monetary payment with ratepayers and these cases also  
11 do not involve gains on sale of rate base assets. See Direct Testimony of Timothy  
12 J. Coley ("Coley Direct") at 31, ls. 22-23 and at 32, ls. 1-5 citing several  
13 Commission Decisions. No sale of rate base assets has occurred. More  
14 importantly, the recommendation fails to consider, in the present instance, all of the  
15 benefits already received by ratepayers. Moreover, the PCG Agreement is a  
16 comprehensive settlement providing both up to 600 gpm of assured capacity for at  
17 least 30 years at a significant cost savings to the Miami customers and payment for  
18 releases of potential claims due to other damages. The Company's Miami  
19 customers have already benefited and will continue to benefit both in the short term  
20 and long term both with safe and reliable water supplies and reduced costs of  
21 supply. The cases cited by Mr. Coley do not present a similar set of circumstances.

22 **IV. STAFF'S PROPOSED RATE DESIGN**

23 **Q. DO YOU AGREE WITH STAFF THAT THERE SHOULD BE A LIFELINE**  
24 **RATE WITH THE FIRST 3,000 GALLONS PRICED 20% BELOW THE**  
25 **AVERAGE COMMODITY COST?**

26 **A.** No. Staff's witness, Mr. Thornton, applies the same lifeline block of 3,000 gallons

1 for all customers in all eight Eastern Group systems, regardless of the customer  
2 class or meter size. First of all, there is no ADEQ engineering guideline that  
3 establishes a lifeline block rate for water rate design. See Thornton Direct at 2, ls.  
4 18-20.

5 The Company also opposes the proposed lifeline rate block because it does  
6 not distinguish between "basic" or "consumptive" uses, between differences in  
7 uses among water systems, or between differences in uses among customer classes.  
8 Staff's universal lifeline proposal is, in reality, merely a means of subsidizing  
9 residential rates at the expense of commercial and industrial customers under the  
10 guise of "conservation" without assessing the financial impact on such customers.

11 To produce a lifeline rate, Staff's three-tiered rate design would raise costs  
12 disproportionately to schools, hospitals, and other places of business and industry.  
13 This is true because, in the end, Staff's proposal unduly places the cost of  
14 establishing a "lifeline" block of water primarily for certain residential customers  
15 on other customers (including residential customers in apartments or mobile home  
16 parks served through a master meter) that also rely upon water for their businesses  
17 or livelihoods, in a manner completely contrary to cost of service rate making that  
18 this Commission has traditionally followed to equitably allocate rates among water  
19 users.

20 **Q. CAN YOU PROVIDE AN EXAMPLE OF THE TYPE OF SUBSIDY THAT**  
21 **YOU HAVE JUST DESCRIBED?**

22 **A.** Yes, looking at Schedule REL-26, page 1, the first block is set at 3,000 gallons, the  
23 second set from 3,001 to 50,000 gallons and the third block is for all water use  
24 above 50,000 gallons. These three blocks have commodity rates of \$1.5008,  
25 \$1.8760 and \$2.2512 per 1,000 gallons, respectively. Using a mobile home with a  
26 single 5/8-inch by 3/4-inch water meter and a mobile home park with 300

individual mobile homes served by a 6-inch master water meter, and assuming equal occupancies and water use for each individual mobile home, estimated at 13,000 gallons per month, the following monthly charges would result:

EXAMPLE

	Individual Mobile Home	Mobile Home Park (300 Mobile Homes)
Total Water Use	13,000 Gals.	3,900,000 Gals. (300 Times 13,000)
First Block	\$4.50 (3,000 Gals.)	\$4.50 (3,000 Gals.)
Second	\$18.76 (10,000 Gals.)	\$88.17 (47,000 Gals.)
Third Block	N/A	\$8667.12 (3,850,000 Gals.)
Total Commodity Cost	\$23.26	\$8759.79
Cost Per Home	\$23.26	\$29.20

The above example clearly illustrates the potential "subsidy" effect of Staff's proposed three-tiered rate design as well as an unwarranted 25% differential between two residential customers. This is not where the problem ends, however, as the rate design proposed by Staff (see Schedule REL-26, page 1) further shifts the costs from the residential customer class to the commercial customer class by establishing new minimum bill multipliers that differ significantly from the Company's minimum bill multipliers established through a cost of service study in the Company's 1992 general rate proceeding. See ACC Decision No. 58120 (December 23, 1992). The following table illustrates the shift of minimum bill

1 multipliers proposed by the Staff:

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Meter Size	Existing Minimum (Multiplier)	ACC Proposed Minimum (Multiplier)
5/8" by 3/4"	\$12.43	\$12.43
1"	\$24.86 (2.0)	\$35.71 (2.9)
2"	\$62.15 (5.0)	\$113.80 (9.2)
3"	\$103.58 (8.3)	\$283.79 (22.8)
4"	\$207.16 (16.7)	\$532.97 (42.9)
6"	\$362.53 (29.2)	\$717.50 (57.7)

11 However, Staff has not supported this significant increase in minimum bill  
12 multipliers by any cost of service or other appropriate study. Instead, Staff seeks to  
13 subsidize certain residential customers by shifting revenue requirements to  
14 commercial and other non-residential customers with no basis whatsoever for such  
15 a change, except Mr. Thornton's testimony that Staff's proposed rate design serves  
16 the greater "social good." See Thornton Direct at 5, ls. 24-29 and 11, ls. 3-4.

17 **Q. DOESN'T MR. THORNTON TESTIFY THAT STAFF'S PROPOSED**  
18 **THREE-TIERED RATE DESIGN PROMOTES CONSERVATION?**

19 **A.** Yes, Mr. Thornton attempts to justify Staff's proposal on such a basis but his own  
20 testimony shows that this approach is not effective in promoting conservation. A  
21 three-tiered rate design is a form of inverted rate design and Mr. Thornton admits  
22 that the three-tiered rate design will probably not result in any conservation of  
23 water. Thornton Direct at Executive Summary and at 5, l.31-6, l.3. Nevertheless,  
24 Mr. Thornton opines that it will send a pricing signal to the customer that water is a  
25 scarce commodity and result in long term changes in water use by customers  
26

1 referring to the American Water Works Association ("AWWA") Manual M-1,  
2 concerning the establishment of a third tier rate based on marginal pricing. *Id.* at 3,  
3 ls. 5-7. I find it remarkable that Mr. Thornton relies so heavily on materials Staff,  
4 in the Company's recent Northern Group rate proceeding, criticized as being  
5 strictly an introductory or elementary level reference used merely to introduce the  
6 concepts of cost analysis. See Transcript, October 3, 2002 Hearing (Docket No.  
7 W-01445A-00-0962) at 215.

8 In any event, water rates should be based on cost of service ratemaking  
9 principles and the determination of potential adverse effects. The AWWA's basic  
10 conditions for rate making are as follows: "The first goal of any rate structure is to  
11 generate sufficient revenues to maintain efficient and reliable utility operations,  
12 and the second is fairness in the allocation of utility service costs." AWWA  
13 Mainstream publication, originally approved by AWWA Government Affairs  
14 Committee on June 28, 1995, attached hereto as Exhibit WMG-1. The AWWA's  
15 position on conservation rates also provides that "Conservation oriented water rate  
16 structures by themselves do not constitute an effective water conservation  
17 program." *Id.*

18 **Q. MR. GARFIELD, IS THERE A NEED FOR THE EASTERN GROUP**  
19 **SYSTEMS TO REDUCE WATER USE THROUGH CONSERVATION**  
20 **EFFORTS?**

21 **A.** No. The Company's Apache Junction, Superior, and Oracle systems are not  
22 required to reduce water use since ADWR has already determined that existing  
23 water use is highly efficient and there is no conservation potential or need to  
24 further reduce water use. The ADWR's Third Management Plans for the Phoenix  
25 and Tucson AMAs show no reduction in water use is necessary for these three  
26 water systems for compliance with conservation measures. This is exceptional,

1 since only a few of the many water systems in these AMAs are in a similar  
2 position. All but a few are required to reduce water use over the next ten years.  
3 Thus, although Staff has introduced a measure that is purportedly needed to help  
4 conserve water, ADWR has determined that no further conservation is required.

5 **Q. DO YOU AGREE WITH MR. THORNTON THAT CONSOLIDATED**  
6 **RATES ARE INAPPROPRIATE FOR WATER SYSTEMS WHOSE**  
7 **EMBEDDED COSTS VARY FROM SYSTEM TO SYSTEM AND WHO**  
8 **DERIVE NO APPARENT BENEFIT FROM CONSOLIDATION?**

9 **A.** No. The Company has requested the Commission to allow consolidation of the  
10 Apache Junction and Superior CC&Ns, a first step toward the Company's plans for  
11 physical consolidation of these two water systems. In that proceeding, Staff  
12 recommends consolidating the two service areas largely because of the cost of  
13 arsenic treatment. Superior and Apache Junction are both impacted by the new  
14 arsenic MCL and consolidating rates is one way of spreading these costs over a  
15 larger base of customers. In addition, since these water systems depend upon the  
16 same overall water supplies, it makes good engineering sense to consolidate these  
17 systems for long-term water resource planning purposes. Also, the use of CAP  
18 water in Superior can only be accomplished by interconnecting these systems.

19 Mr. Thornton incorrectly claims that there is no apparent benefit to  
20 consolidation, but fails to note that these systems already share resources. See  
21 Thornton Direct at 10, ls. 16-18. Earnings in one system shore up or subsidize the  
22 lack of earnings in the other system. This is clearly the case with Apache Junction  
23 and Superior. The arsenic issue alone, however, provides an opportunity to spread  
24 costs across a much larger customer base leading to lower overall costs to all  
25 customers. Administration and operations oversight of arsenic water treatment  
26 plants will be more efficient under one operation than many.

1 Q. DO YOU AGREE WITH MR. LUDDERS THAT THERE IS NO  
2 INCENTIVE TO REDUCE WATER USAGE UNDER UNIFORM RATES?

3 A. No, I do not. Mr. Ludders' comment (see Ludders Direct at 16, l. 9) that  
4 customers have no incentive to reduce water use under uniform rates has no  
5 foundation and is clearly inaccurate. The Company's San Manuel customers,  
6 many of whom provided public comments on June 23, 2003, voiced their concerns  
7 that they may have to reduce water use after water rates increase because they are  
8 retired and on a fixed income and cannot afford to pay more for water. Customers  
9 that use more water and demand a higher level of service from the Company pay  
10 more than those customers that use less water and have a significant incentive to  
11 reduce water use through changes in water use habits, use of low-flow fixtures, etc.  
12 Uniform rates do not translate to a flat bill. Customers pay for the quantity of  
13 water they use.

14 Nevertheless, Mr. Thornton and Mr. Ludders testify that water is a finite  
15 resource requiring the implementation of a more complex rate structure, and allege  
16 this has been done nationally and internationally. See Thornton Direct at 4, ls. 13-  
17 19; Ludders Direct at 16, ls. 9-12. In fact, tiered rates are much less common than  
18 uniform rates in Arizona. The predominant rate design in Arizona is a uniform rate  
19 design, easy for customers to understand, simple to administer, and producing  
20 predictable revenue. Staff's proposed three-tiered rate design is not based on cost  
21 of service principles, a long established standard of rate making, nor has Staff  
22 considered any of the disadvantages of three-tiered rates, such as revenue  
23 instability, subsidization of small users by large users, and the shift of the true cost  
24 of service from small users to large users. Staff further fails to address the fact that  
25 the imposition of three-tiered rates, without assessing each water system's  
26 individual, case-by-case specific water use and supply demographics, violates the

Commission's own policy on the application of these types of rate designs.  
Commission Working Group Report Attachment C, attached as Exhibit WMG-2.

**Q. WHAT IS YOUR ASSESSMENT OF STAFF'S RECOMMENDED RATE DESIGN FOR APACHE JUNCTION?**

A. My experience and review of water system operating statistics shows that very few residential customers use over 50,000 gallons of water per month. The Company opposes the shift in cost from small users to large users, which is not supported by a cost of service study and which also contradicts accepted rate-making principles. Furthermore, the rates set forth in Mr. Ludders' testimony (*see* Staff Schedule REL-26, Page 1) would give a discount to certain customers by maintaining the same monthly minimum bill for those customers, a rate that has been in place over 10 years, while simultaneously raising the monthly minimum bills to 1-inch and larger meters irrespective of any cost of service principles. The Company also objects to the rate design for the monthly minimum bills for the other systems in the Eastern Group on similar grounds, i.e., raising rates disproportionately between customer classes is inappropriate and should be rejected.

**V. STAFF'S ENGINEERING TESTIMONY**

**Q. HAVE YOU REVIEWED THE STAFF TESTIMONY ON ENGINEERING ISSUES?**

A. I have reviewed the testimony and recommendations made by Mr. Hammon in this matter. To begin with, the Company objects to reducing the allowable pumping expenses for Miami by \$39,000. Mr. Hammon's explanation for the reduction is based on a misunderstanding of the PCG Agreement, is incorrect and does not provide a known and measurable basis for such an adjustment. *See* Hammon Direct at 18, ls. 20-22. As a consequence, this adjustment is contrary to traditional ratemaking principles and penalizes the Company.



1           The Company also disagrees with Mr. Hammon's assumption that well  
2 power and transport power is a 50/50 split. See Direct Testimony of Lyndon  
3 Hammon ("Hammon Direct") at 18, ls. 5-17. This assumption ignores the specific  
4 information inherent in the Company's Miami water system operating statistics.  
5 The Miami water system consists of many deep wells pumping from a depth  
6 approaching 1000 feet below land surface. Well power costs are higher in Miami  
7 than in most systems due to the depth of groundwater. Mr. Hammon ignores the  
8 specific water system operating statistics that compare high well power use to  
9 booster power use. His adjustment to power is therefore wrong and without known  
10 and measurable supporting evidence. This is in addition to the fact that the  
11 quantity of replacement water provided by the PCG to the Company is variable and  
12 subject to change if the facilities are transferred to the Company.

13 **Q. ARE THERE OTHER AREAS OF DISAGREEMENT?**

14 **A.** Yes. The Company also disagrees that curtailment tariffs should be required as  
15 part of this rate proceeding, particularly given Staff's view that any curtailment  
16 tariff should simply conform to the sample tariff prepared by the Staff. While the  
17 Company is in the process of preparing a master, company-wide curtailment tariff,  
18 the template prepared by the Staff would remove the water system operator's  
19 professional discretion in its operation of its water systems. To my knowledge, the  
20 Staff has no operating experience upon which to base its curtailment plan. Instead,  
21 because this issue potentially affects all water companies, Staff should solicit  
22 stakeholder input to draft rules to prescribe the process through which, and the  
23 conditions under which, water companies would have authority to implement water  
24 use curtailment plans. This issue is not appropriate for this general rate  
25 application.

26 **Q. DO YOU AGREE WITH STAFF'S TESTIMONY CONCERNING**

1           **CHLORINATION EXPENSES?**

2    A.    No.    The Company's pro forma adjustments to chlorination expenses do, in fact,  
3           meet the "known and measurable" test. *See Hammon Direct at 11, ls. 17-19.* The  
4           Company's pro forma adjustments are based on known labor costs (\$/hour), known  
5           chemical costs (\$/pound), the number of chlorination sites, labor hours to operate  
6           and maintain each chlorination facility, and amount of chemicals consumed per  
7           site. *See the Company's Schedule C-1 Pages 1-5.* The Company used known and  
8           measurable labor and chemical costs, and determined, based on best professional  
9           operational experience, the amount of time each employee would spend  
10          maintaining each facility and the quantity of chemicals used. The Company does  
11          not object to the use of 2002 recorded expenses, rather than the Company's pro  
12          forma adjustments, but submits that its pro forma adjustments are "known and  
13          measurable" for the reasons stated above.

14    **Q.    DO YOU AGREE WITH STAFF'S RECOMMENDATION ON THE NON-**  
15          **POTABLE RATE DESIGN?**

16    A.    No, I do not agree with Mr. Hammon's testimony concerning eliminating the fixed  
17          meter charge, and the requirement for the Company to install protective equipment.  
18          ~~*See Hammon Direct at 14-16.*~~ Again, there has been no cost of service study  
19          presented to justify such changes. In order to reduce groundwater pumping and  
20          encourage use of CAP water, the Company's current non-potable rates were  
21          designed to avoid shifting costs to potable water users. There are certain expenses  
22          related to the operation and maintenance of non-potable accounts that would be  
23          shifted to customers using potable water under Mr. Hammon's recommendations.  
24          Customers served under these tariffs represent large water users, and generate no  
25          income for the Company. Ultimately, Staff's approach would shift these costs to  
26          the Company's potable customers.

1           Also, the Company cannot accept Staff's recommendation that the  
2           Company hold the customer harmless from certain damages that might be  
3           prevented by protective equipment and the reference to the SLV Properties formal  
4           complaint. *See* Hammon Direct at 14-16. Mr. Hammon neglects to note that all of  
5           these facilities were designed and installed by customers and contributed to the  
6           Company. Power is supplied to the electronic meters by the non-potable  
7           customers. Any power surge that may develop comes from the customers'  
8           facilities, which the customer controls. Any protective device needed should be  
9           installed by, and be the responsibility of, the customer. The SLV Properties formal  
10          complaint has already been decided by the Commission (*see* Decision No. 65755  
11          (March 20, 2003)) and Staff seems to simply want another bite at the apple,  
12          apparently disagreeing with the Commission's decision on that matter. That matter  
13          should not be subject to further consideration in this case.

14       **Q. DO YOU AGREE WITH STAFF'S TESTIMONY CONCERNING WATER**  
15       **LOSS?**

16       A. No, I do not agree with Staff concerning water loss for the Eastern Group water  
17       systems or with Staff's recommendations that water systems should keep water  
18       losses less than 10% and that water losses should never exceed 15%. *See* Hammon  
19       Direct at 4, l. 23. As I testified earlier, knowledge of water system operations is  
20       critical to the ability to determine water loss. Mr. Hammon's statement about  
21       allowable water loss percentages is without any foundation. I have reviewed the  
22       non-account water percentages that Mr. Hammon lists in his direct testimony (*see*  
23       Hammon Direct at 4, ls. 11-19) and I conclude that the percentages he utilizes  
24       reflect the percentage of water that was not sold to customers, not the percentage of  
25       water that was lost due to true "water losses" from water systems. For example,  
26       water used to overflow water storage tanks, flush water distribution systems, or

1 provide water for fire protection are just a few examples of unsold water that are  
2 essential to operating and maintaining a water system and serving non-billable  
3 community water needs.

4 Moreover, the use of percentages to evaluate water system operation and  
5 distribution efficiencies has long been discounted. A water system is comprised of  
6 pipe that has an allowable leakage even when newly installed. The amount of total  
7 leakage is a function of pipe diameter, length of pipe, water pressure, age of pipe,  
8 etc. Therefore, a water system with more pipe per customer, or with higher  
9 operating pressures, would experience more water loss than a similar customer  
10 base with less water pipe per customer or with lower operating pressures.

11 **Q. ARE THERE OTHER FACTORS THAT MUST BE CONSIDERED?**

12 A. Yes, for instance, another variable that can greatly affect water system losses, when  
13 expressed as a percentage of water produced, is the amount of water delivered to a  
14 system's customers. Take for example, two identical water systems, i.e., water  
15 systems with identical pipes and identical water leaks, leaking at a rate of 100 gpm,  
16 with average water deliveries of 500 gpm and 1000 gpm, respectively. The water  
17 system that delivers 1000 gpm on the average and loses 100 gpm from its  
18 distribution system would have a 9.1% water loss (100 gpm divided by 1100 gpm)  
19 and the water system that delivers 500 gpm would have a 16.7% water loss rate.  
20 Both water systems are identical, however, and their operational efficiency is  
21 identical. Nevertheless, based on the standard that Mr. Hammon espouses for  
22 Staff, one water system would be characterized as inefficient due to its 16.7%  
23 water loss.

24 These factors are some of the reasons why Bisbee, Superior, San Manuel,  
25 and Oracle have higher actual, or apparent, water losses than most systems. More  
26 pipe, more pressure, less sales, all result in higher percentages of water losses.

1 Pressures in Superior are near 1000 PSI, with 23 miles of pipe before the first  
2 customer. Pressures in Bisbee and Oracle approach 500 PSI and 300 PSI,  
3 respectively, with similar pipe footage before the first customer. San Manuel is a  
4 water system with 20% less customers and lower sales per customer than 4 years  
5 ago, which has the effect of raising the apparent water loss when expressed as a  
6 percentage. Yet, actual water losses have not increased in San Manuel over the  
7 same time period.

8 **Q. DO YOU HAVE CONCERNS ABOUT STAFF'S TESTIMONY**  
9 **REGARDING A METER TESTING AND IMPROVEMENT PROGRAM?**

10 A. Yes. By suggesting that the Company determine the cost to implement or improve  
11 a meter testing and replacement program (*see* Hammon Direct at 5, l. 15), Mr.  
12 Hammon apparently does not know about the Company's meter maintenance  
13 program or the Company's Coolidge meter shop, which Staff has relied upon for  
14 many years to perform meter testing for other water companies. The Company's  
15 highly experienced and trained meter repair technicians have provided first hand  
16 instruction to Staff's engineering personnel over the years and the Company's  
17 Coolidge meter shop is regarded as one of the best meter repair facilities in the  
18 Southwest, a status that has been earned with years of continued excellence in the  
19 meter industry.

20 In addition, Mr. Hammon is apparently unfamiliar with the Company's  
21 meter maintenance program. The Company's meter maintenance program tracks  
22 gallons used and years in service for each size and type of meter. Random testing  
23 of meters is also performed to assess the effectiveness of the Company's meter  
24 maintenance program and is periodically adjusted to reflect greater efficiencies.  
25 Mr. Hammon also fails to note that for all meter testing by the Commission at the  
26 request of the Company's customers, meter accuracy results were exceptional.

1 Concerning assessing benefits and savings from incremental reductions in  
2 water losses, Mr. Hammon is apparently unaware of the Company's monthly  
3 operating water loss reports that describe the cost of lost water based on recent  
4 source of supply costs and the amount of expense saved with each 1% reduction in  
5 water loss.

6 Mr. Hammon recommends that the Company determine the cost to identify  
7 leaks, and repair water mains after leaks are found. (See Hammon Direct at 5, ls.  
8 16-17. Contrary to Mr. Hammon's implications, the Company repairs all leaking  
9 water mains once leaks are identified.

10 Concerning the cost of performing leak audits and/or water system leak  
11 surveys, Mr. Hammon apparently is unaware of the Company's leak surveys. The  
12 Company's experience with leak surveys shows that except for extreme  
13 circumstances, the Company's water system personnel are in a better position to  
14 isolate the causes of leaks and to make repairs than using third-party leak locating  
15 service companies. The Company's personnel are also provided with several types  
16 of leak detection equipment to identify sources of leaks. Minimizing water losses  
17 is an ongoing effort and water losses tend to be cyclical in nature. Water system  
18 losses vary over time and efforts to locate leaks are driven by the level of water  
19 loss, cost of water losses and the ability to reduce water loss through various  
20 efforts.

21 **VI. RATE OF RETURN ISSUES**

22 **Q. DO YOU AGREE THAT VARIOUS STATE UTILITY COMMISSIONS**  
23 **PROVIDE FOR ALLOWED RATES OF RETURN THAT REFLECT**  
24 **VARIOUS INCENTIVES AND DISINCENTIVES, BUT THAT THESE**  
25 **WOULD LIKELY NOT APPLY TO THE COMPANY?**

26 **A. No, I do not. The Company should be allowed a higher than average return**

1 reflecting various incentives, such as the fact that the Company is well-run and has  
2 historically been able to consolidate troubled nearby water systems with existing  
3 Company water systems. Water system consolidation has been encouraged by  
4 ADEQ and the Commission over many years. Apache Junction, Bisbee, Sierra  
5 Vista, Coolidge, Casa Grande, Sedona, and Valley Vista are examples of the many  
6 water systems that the Company consolidated into one larger system, in some cases  
7 virtually "over night," to resolve lost or failing water supplies.

8 **Q. DO YOU AGREE THAT THE COMPANY SHARES THE SAME**  
9 **FINANCIAL OR INVESTMENT RISK AS THE SIX**  
10 **WATER/WASTEWATER COMPANIES STAFF RELIES ON IN ITS COST**  
11 **OF CAPITAL ANALYSIS?**

12 **A.** No, I do not. The Company's risk is greater than any of these six companies for  
13 many reasons. One significant reason is that these six companies are not affected  
14 to the same degree by the new arsenic MCL. The problem of arsenic is greatest in  
15 the Southwestern United States and the Company must construct a large number of  
16 treatment facilities in numerous water systems over the next thirty months,  
17 estimated at a cost of approximately \$30 million.

18 During the next 3 budget years, the Company will have to severely limit  
19 new construction or replacement projects due to the financial needs and efforts to  
20 complete arsenic treatment projects by January 23, 2006. This will delay other  
21 needed improvements, such as additional back-up water supplies, which may be  
22 needed by existing water systems and those impacted by the current drought.  
23 Replacement water mains may be delayed as well, due to budgetary and labor  
24 constraints, a predicament the Staff should be keenly aware of in light of the State's  
25 current budget woes. Radon gas, more stringent radionuclide maximum  
26 contaminant levels, water system vulnerability, disinfection byproducts and other

1 upcoming federal regulations also pose additional financial risks since the  
2 Company will need to allocate or employ additional personnel and financial  
3 resources to comply with these new requirements.

4 Thus, it is readily apparent that the Company is bearing significant and  
5 unique risks that should be considered in setting the appropriate rate of return.

6 **Q. DO YOU AGREE WITH RUCO THAT THE SAN MANUEL WATER**  
7 **SYSTEM HAS A SECURE SOURCE OF WATER NOW AND IN THE**  
8 **FUTURE?**

9 **A.** No, I do not and this is another example of risk that has been ignored. *See Direct*  
10 *Testimony of Timothy Coley, at 37, ls. 4-5.* Although the Company has purchased  
11 its entire water supply for its San Manuel water system from BHP (formerly  
12 Magma Copper), the current agreement provides for termination of water service  
13 after a short notification time period. Although BHP may sell or lease its water  
14 production facilities to the Company in the event of a cancellation of its water  
15 service contract, there is no certainty that this would occur. This fact, coupled with  
16 the financial uncertainty of the mining industry, make the reliability of San  
17 Manuel's water supply questionable.

18 In addition, all of BHP's wells are located along the San Pedro River and  
19 are subject to challenge by the Gila River Indian Community ("GRIC") and other  
20 Globe Equity 59 right holders. Neither BHP nor the Company has received a  
21 waiver or settlement with the GRIC on the San Pedro and water supplies may also  
22 be subject to the current adjudication process. In summary, Mr. Coley's statements  
23 concerning the stability or security of the Company's water supplies for San  
24 Manuel are exaggerated and inaccurate and the insecurity and instability of San  
25 Manuel's water supplies increases the level of the Company's operational and  
26 financial risk.



1 **VII. MISCELLANEOUS ISSUES**

2 **Q. ARE THERE ANY OTHER MATTERS YOU WISH TO ADDRESS?**

3 A. Yes, the Company also objects to RUCO's recommendation that it be required to  
4 file a rate case within 3 years of a decision in this matter. See Rigsby Direct at 32,  
5 ls. 14-19. The Company already anticipates filing a rate case using test year 2006  
6 or 2007 due to the impact of wellhead treatment costs associated with the new  
7 arsenic MCL, as well as the likely increase in other operating expenses. Thus,  
8 there is no basis for requiring the Company to file a rate case within 3 years, as  
9 RUCO contends.

10 Nevertheless, to address RUCO's concerns about variable O&M expenses  
11 related to the PCG's provision of replacement water to the Company, the Company  
12 would be willing to establish a PCG water adjustment mechanism to account for  
13 any increase or decrease in the cost of water, depending upon the quantity of water  
14 delivered by the PCG to the Company in any one year. If Staff and RUCO agree,  
15 the Company will prepare an exhibit detailing such an adjustment mechanism.

16 **Q. DO YOU AGREE WITH RUCO'S POSITION CONCERNING RATE**  
17 **CONSOLIDATION FOR THE COMPANY'S APACHE JUNCTION AND**  
18 **SUPERIOR WATER SYSTEMS?**

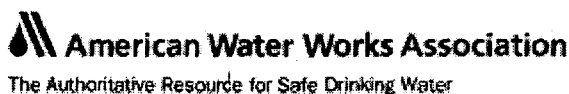
19 A. No, I do not agree with RUCO's position for the same reasons that I disagree with  
20 Staff's opposition to consolidated rates. Rate consolidation for Apache Junction  
21 and Superior should be approved for the reasons I stated earlier.

22 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY IN THIS**  
23 **MATTER?**

24 A. Yes, except to add that the Company does not waive its right to challenge any  
25 provision or recommendation not specifically addressed in rebuttal testimony.

26

# EXHIBITS



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Water Conservation and Water Utility Programs**Approved June 28, 1995. To Be Published in *AWWA Mainstream*

Water conservation can be defined as practices, techniques, and technologies that improve the efficiency of water use. Increased efficiency expands the use of the water resource, freeing up water supplies for other uses, such as population growth, new industry, and environmental conservation.

Water conservation is often equated with temporary restrictions on customer water use. Although water restrictions can be a useful emergency tool for drought management or service disruptions, water conservation programs emphasize lasting day-to-day improvements in water use efficiency.

**The Role of Water Conservation**

Community water supply management requires balancing the development of adequate water supplies with the needs of the utility's customers. Traditionally, water utilities have focused primarily on developing additional supplies to satisfy increasing demands associated with population growth and economic development. Increasingly, however, water utilities throughout the United States are recognizing that water conservation programs can reduce current and future water demands to the benefit of the customer, the utility, and the environment.

The increasing efforts in water conservation, often called demand-side management, are spurred by a number of factors: growing competition for limited supplies, increasing costs and difficulties in developing new supplies, optimization of existing facilities, delay or reduction of capital investments in capacity expansion, and growing public support for the conservation of limited natural resources and adequate water supplies to preserve environmental integrity.

The focus of any supply strategy is to satisfy customer water needs in the most cost-effective and efficient manner, minimizing any adverse environmental impact and preserving the quality of life. Although conservation is sometimes an alternative to developing additional supplies, it is more often one of several complementary supply strategies for a utility. A conservation strategy, like any supply strategy, is part of a utility's overall planning and part of the integrated resource planning to ensure that all important community objectives and environmental goals are considered.

Water conservation in the broad sense is a key element in the day-to-day management of the modern water utility. Sound management includes the following basic water conservation practices:

- reduction of unaccounted-for water through universal metering and accounting of water use, routine meter testing and repair, and distribution system leak detection and repair;
- cost-of-service - based water rates; and
- public information and education programs to promote water conservation and to assist residential and commercial customers with conservation practices.

Beyond these fundamental conservation practices, effective water conservation programs are tailored to the needs and priorities of each community and recognize local and regional water demand characteristics and water supply availability.

**Water Savings and Reliability**

Conserved water can be considered a reliable water source. Great strides have been made over the past decade in evaluating and documenting the effectiveness of various conservation programs. Today there is a body of knowledge on water conservation, gained from the experiences of utilities, that provides a relatively high degree of confidence in the reliability and predictability of various water conservation measures. Some water planners feel, however, that the predictability and permanence of conservation measures have not been proven to the same degree as traditional supply measures.

The reliability of conserved water depends on accurate estimates of potential savings, expected benefits, and costs. Careful analysis and planning is a prerequisite to major utility investments in conservation programs. Reliability concerns also underscore the ongoing need for utilities to monitor and document the effectiveness of their conservation programs, just as they do water supplies and facilities.

Long-term conservation programs can affect short-term demand management practices. Reductions in water demands from long-term conservation programs and reductions from short-term demand management measures can overlap. Customers who have installed retrofit devices under long-term conservation programs may have less ability or willingness to further conserve.

In the event of water shortages, agencies with broad-based water conservation programs are able to mitigate short-term and long-term effects better than those without a conservation program.

### Financial Aspects of Conservation

Conservation programs typically involve up-front costs, including revenue losses. The full benefits of conservation are realized only after all savings have materialized. However, reduced water sales because of conservation often develop slowly in small increments that can be accommodated in periodic rate adjustments.

Over the long-term, conservation can decrease a utility's need for new capital facilities for supply acquisition, treatment, storage, pumping, and distribution. It may also reduce the costs of operating those facilities. Deferring investment in such facilities or reducing their size can provide significant cost savings. In areas experiencing population growth, conservation can provide additional capacity to accommodate growth, resulting in a larger customer base over which to spread future capital costs. Water rates may be lower with conservation than without.

Water conservation can affect wastewater collection and treatment systems. Reduced hydraulic loadings can improve treatment performance in terms of effluent quality and reduced operating costs. Reducing wastewater flows through conservation can result in cost savings by deferring the need to enlarge wastewater treatment facilities.

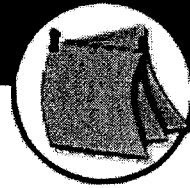
**Rates.** The first goal of any rate structure is to generate sufficient revenues to maintain efficient and reliable utility operations, and the second is fairness in the allocation of utility service costs. Generally, it is possible to satisfy both of these goals in a rate structure that encourages water conservation or penalizes excessive water use.

Conservation-oriented water rate structures by themselves do not constitute an effective water conservation program. Rate structures work best as a conservation tool when coupled with a sustained customer education program. Customer education is important to establish and maintain the link between customer behaviors and their water bill. Utility customers require practical information about water-conserving practices and technologies. Participation in other water conservation programs, such as plumbing-fixture retrofit and replacement programs, can also be enhanced by rate incentives and customer education. Finally, public acceptance of rate structure changes is often enhanced if customers understand the need for and benefits of water conservation.

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Arizona Corporation Commission

**WORKING GROUP REPORTS****Attachment C****Proposed Policy For Water System Tiered Rate Design**

Pricing/rate design is the Commission's primary means of encouraging conservation. The Commission can do this by implementing inverted block rates, i.e., tiered rates. Tiered rates may not be appropriate in all circumstances. Staff will consider the appropriateness of an inverted three-tiered commodity rate structure for all water company rate cases, and if appropriate, will recommend such a tiered rate structure to encourage conservation. The tiers should be designed in a manner that customers who conserve will recognize cost savings, while high water users will pay a greater portion of the costs that increased usage places on the water system. Criteria for evaluating the appropriateness and/or type of tiered rate structure on a case-by-case basis shall include, but not be limited to, the following:

1. Number of service connections on the system.
2. Number of high usage customers on the system.
3. Gallons of average water usage per connection per month.
4. Gallons of median water usage per connection per month.
5. Source of supply.

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